

AMENDMENTS TO THE CLAIMS

Claims 1-9. (Canceled)

10. (Currently amended) An electrical generator as ~~claimed in claim 9~~ infor harvesting energy from environmental vibrations or motion which includes

a) an elongated support fixed at one end with the other end free to move or flex

b) a coil with electric outputs secured to said elongated support remote from the fixed end

c) a magnetic field adjacent the coil such that movement of the coil induces an electric current in the coil

d) a piezo membrane ~~[[is]]~~ incorporated in the elongated support so that the movement of the coil stresses the piezo membrane and generates a voltage that can be used to rectify the current produced in the coil.

11. (Currently amended) An electrical generator as claimed in claim ~~[[9]]~~10 in which there are several elongated supports of varying dimensions selected to provide a wider vibrational bandwidth.

12. (Currently amended) An electrical generator as claimed in claim ~~[[9]]~~10 in which the support is L shaped and fixed at the top with the coil mounted on the foot of the L.

13. (Currently amended) An electrical generator as claimed in claim ~~[[9]]~~10 in which the magnetic field is provided by permanent magnets which are configured to maximize the magnetic flux in the path of the moving coil.

14. (Currently amended) An electrical generator as defined in claim ~~[[9]]~~10, which incorporates a DC to DC voltage converter and a voltage detector.

15. (Previously Presented) A rectification device for a parasitic energy harvester in which vibration or motion induces relative movement between a coil and a magnet to induce an electric

current in the coil in which a piezo electric membrane is incorporated into the support for either the magnet and/or the coil so that the vibration or motion also produces a voltage in the piezoelectric membrane sufficient to power the rectification of the voltage produced by the relative movement between the coil and the magnet.

16. (Previously Presented) A rectification device as claimed in claim 15 in which a coil is supported in the foot of an L shaped membrane secured for movement at the top of the L and the piezo membrane is positioned to be stressed by the movement of the membrane to produce a sufficient voltage to rectify the current produced in the coil.